

REMARKS

Status Summary

Claims 1-20, 22, and 23 are pending in the present application. In this amendment, no claims are added and no claims are canceled. Therefore, upon entry of this amendment, claims 1-20, 22, and 23 will remain pending.

Examiner Interview Summary

Applicants acknowledge with appreciation the telephone interview granted by the Examiner to Applicants' representative, William E. Wooten, on October 25, 2011. In the Telephone Examiner Interview, the claims and cited art were discussed. In particular, Applicants' representative indicated that the cited art does not disclose, teach, or suggest terminally supporting a subsequent codec-bypass negotiation with an originating entity of a first message that includes transcoding subsequent messages received from the originating entity of the first message according to codec information regarding the originating entity of the first message and forwarding the transcoded messages to an intermediate entity configured to further forward the transcoded messages toward their destination. Applicants' representative further indicated that the cited art does not disclose, teach, or suggest a target in-path gateway configured to utilize a codec-bypass connection compatibility with a gateway to transcode messages received from the gateway and forward the transcoded messages to an intermediate gateway configured to further forward the transcoded messages toward their destination. The Examiner indicated that additional review of the cited art was required and agreed to telephone Applicants' representative prior to making a final rejection based solely on the presently cited art. The Examiner further

indicated that a subsequent search and review would be necessary before a Notice of Allowance is issued. The Examiner is invited to call Applicants' representatives, Gregory A. Hunt or William E. Wooten, at (919) 493-8000 to conduct a subsequent telephone interview to resolve any outstanding issues.

Claim Rejections – 35 U.S.C. § 103

Claims 1-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,324,409 to Shaffer et al., (hereinafter, "Shaffer") in view of U.S. Patent No. 7,240,000 to Harada, (hereinafter, "Harada") and further in view of U.S. Patent Application Publication No. 2001/0024960 to Mauger (hereinafter, "Mauger"). Claims 18-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,600,738 to Alperovich et al., (hereinafter, "Alperovich") in view of Harada, and further in view of Mauger. Claims 22 and 23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Alperovich in view of Harada, further in view of Shaffer, and furthermore in view of Mauger. These rejections are respectfully traversed.

Independent claim 1 recites a communication apparatus. The communication apparatus includes a first interface for exchanging data with a first neighboring entity. The communication apparatus also includes a second interface for exchanging data with a second neighboring entity. The communication apparatus further includes a memory for storing codec information regarding said communication apparatus. The communication apparatus further includes a control entity operative to detect, after a call is established, a first message from the first neighboring entity via the first interface, the first message being indicative of codec information regarding an

originating entity of the first message. The communication apparatus is characterized by, responsive to detecting of the first message, the control entity being operative to perform an assessment of compatibility between the codec information regarding the originating entity of the first message and the codec information regarding said communication apparatus. The communication apparatus is also characterized by, responsive to the assessment of compatibility being positive, the control entity being operative to self-identify the communication apparatus as a candidate for terminally supporting a subsequent codec-bypass negotiation with the originating entity of the first message, wherein terminally supporting the subsequent codec-bypass negotiation with the originating entity of the first message includes transcoding subsequent messages received from the originating entity of the first message according to the codec information regarding the originating entity of the first message and forwarding the transcoded messages to an intermediate entity configured to further forward the transcoded messages toward their destination. The communication apparatus is further characterized by, responsive to the assessment of compatibility being negative, the control entity being operative to self-identify the communication apparatus as a candidate for non-terminally supporting a subsequent codec-bypass negotiation with the originating entity of the first message.

Independent claims 16 and 17 respectively recite a method and computer-readable media for establishing candidacy of a gateway as terminally or non-terminally supporting a codec-bypass negotiation with an originating entity in a communications network. For example, claim 16 recites a method that includes steps performed after a call is established. The steps include detecting a first

message received from a first neighboring entity, the first message being indicative of codec information regarding the originating entity of the first message. The steps also include assessing compatibility between the codec information regarding the originating entity of the first message and the codec information regarding the gateway. The steps further include, responsive to the assessment of compatibility being positive, self-identifying the gateway as a candidate for terminally supporting a subsequent codec-bypass negotiation with the originating entity of the first message, wherein terminally supporting the subsequent codec-bypass negotiation with the originating entity of the first message includes transcoding subsequent messages received from the originating entity of the first message according to the codec information regarding the originating entity of the first message and forwarding the transcoded messages to an intermediate entity configured to further forward the transcoded messages toward their destination. The steps further include responsive to the assessment of compatibility being negative, self-identifying the gateway as a candidate for non-terminally supporting a subsequent codec-bypass negotiation with the originating entity of the first message.

Independent claim 18 recites a method of establishing a codec-bypass connection between a first gateway and one of a plurality of in-path gateways located along a path from the first gateway to a second gateway. The method includes steps performed after a call is established. The steps include identifying a target in-path gateway from among the plurality of in-path gateways, the target in-path gateway being the in-path gateway furthest along the path from the first gateway which is characterized by codec-bypass connection compatibility with the first-gateway and

wherein the target in-path gateway is configured to utilize the codec-bypass connection compatibility with the first gateway to transcode messages received from the first gateway and forward the transcoded messages to an intermediate gateway configured to further forward the transcoded messages toward their destination. The steps also include establishing a codec-bypass connection between the first gateway and the target in-path gateway.

Independent claim 22 recites a method of establishing a codec-bypass connection along a path between a first gateway and a second gateway, the path comprising a plurality of in-path gateways. The method includes steps performed after a call is established. The steps include identifying a first sub-path between the first gateway and a first target in-path gateway from among the plurality of in-path gateways, the first target in-path gateway being the in-path gateway furthest along the path from the first gateway which is characterized by codec-bypass connection compatibility with the first gateway and wherein the first target in-path gateway is configured to utilize the codec-bypass connection compatibility with the first gateway to transcode messages received from the first gateway and forward the transcoded messages to an intermediate gateway configured to further forward the transcoded messages toward their destination. The steps also include identifying a second sub-path between the second gateway and a second target in-path gateway from among the plurality of in-path gateways, the second target in-path gateway being the in-path gateway furthest along the path from the second gateway which is characterized by codec-bypass connection compatibility with the second gateway and wherein the second target in-path gateway is configured to utilize the codec-bypass connection

compatibility with the second gateway to transcode messages received from the second gateway and forward the transcoded messages to an intermediate gateway configured to further forward the transcoded messages toward their destination. The steps further include determining the lengths of the first and second sub-paths. The steps further include, if the first sub-path is longer than the second sub-path, establishing a codec-bypass connection between the first gateway and the first target gateway. The steps further include, if the second sub-path is longer than the first sub-path, establishing a codec-bypass connection between the second gateway and the second target gateway.

As indicated above, each of claims 1, 16, and 17 recites that terminally supporting the subsequent codec-bypass negotiation with the originating entity of the first message includes transcoding subsequent messages received from the originating entity of the first message according to the codec information regarding the originating entity of the first message and forwarding the transcoded messages to an intermediate entity configured to further forward the transcoded messages toward their destination. Similarly, claim 18 recites that the target in-path gateway is configured to utilize the codec-bypass connection compatibility with the first gateway to transcode messages received from the first gateway and forward the transcoded messages to an intermediate gateway configured to further forward the transcoded messages toward their destination, and claim 22 recites that the first target in-path gateway is configured to utilize the codec-bypass connection compatibility with the first gateway to transcode messages received from the first gateway and forward the transcoded messages to an intermediate gateway configured to further forward the

transcoded messages toward their destination and that the second target in-path gateway is configured to utilize the codec-bypass connection compatibility with the second gateway to transcode messages received from the second gateway and forward the transcoded messages to an intermediate gateway configured to further forward the transcoded messages toward their destination. Support for the amendment is found in the instant specification, for example, at page 8, lines 17 – 24; which provides:

A gateway in “passive” mode is capable of relaying codec-bypass negotiation messages from one leg to another leg of a call that it serves, but it does not terminate the negotiation, i.e., it only serves to “passively support” a codec-bypass negotiation. However, depending on the capabilities of the gateway, the gateway may also be able to acquire an “active” mode for the purposes of the codec-bypass negotiation. In “active” mode, the gateway is capable of terminally supporting (i.e., terminating) a codec-bypass negotiation on at least one leg of a call that it serves. (See page 8, lines 17 – 24, of the instant specification.)

Additional support for the Amendment is found in Figures 1A – 1D and 2 of the instant specification, and their accompanying descriptions, found at pages 7 – 13, of the instant specification.

There is no disclosure, teaching, or suggestion in Shaffer of terminally supporting a subsequent codec-bypass negotiation with an originating entity of a first message that includes transcoding subsequent messages received from the originating entity of the first message according to codec information regarding the originating entity of the first message and forwarding the transcoded messages to an intermediate entity configured to further forward the transcoded messages toward their destination. Nor does Shaffer disclose, teach, or suggest a target in-path gateway configured to utilize a codec-bypass connection compatibility with a gateway

to transcode messages received from the gateway and forward the transcoded messages to an intermediate gateway configured to further forward the transcoded messages toward their destination. Shaffer is directed to selecting voice compression and coding based on the capabilities of intermediary networks and links, as well as the capabilities of the end points. (See Abstract of Shaffer.) Nowhere does Shaffer disclose terminally supporting a subsequent codec-bypass negotiation with an originating entity of a first message that includes transcoding subsequent messages received from the originating entity of the first message according to codec information regarding the originating entity of the first message and forwarding the transcoded messages to an intermediate entity configured to further forward the transcoded messages toward their destination, nor a target in-path gateway configured to utilize a codec-bypass connection compatibility with a gateway to transcode messages received from the gateway and forward the transcoded messages to an intermediate gateway configured to further forward the transcoded messages toward their destination.

Harada likewise lacks such disclosure, teaching, or suggestion. Harada is directed to a method for controlling speech code between mobile terminals in a communications network that uses a general-purpose coding process for transmitting coded speech through the network. (See Abstract of Harada.) Nowhere does Harada disclose terminally supporting a subsequent codec-bypass negotiation with an originating entity of a first message that includes transcoding subsequent messages received from the originating entity of the first message according to codec information regarding the originating entity of the first message and forwarding the

transcoded messages to an intermediate entity configured to further forward the transcoded messages toward their destination, nor a target in-path gateway configured to utilize a codec-bypass connection compatibility with a gateway to transcode messages received from the gateway and forward the transcoded messages to an intermediate gateway configured to further forward the transcoded messages toward their destination.

Mauger likewise lacks such disclosure, teaching, or suggestion. Mauger is directed to using a tandem free operation mode, when possible, to optimize speech quality in a mobile radio system. (See Abstract of Mauger.) Nowhere does Mauger disclose terminally supporting a subsequent codec-bypass negotiation with an originating entity of a first message that includes transcoding subsequent messages received from the originating entity of the first message according to codec information regarding the originating entity of the first message and forwarding the transcoded messages to an intermediate entity configured to further forward the transcoded messages toward their destination, nor a target in-path gateway configured to utilize a codec-bypass connection compatibility with a gateway to transcode messages received from the gateway and forward the transcoded messages to an intermediate gateway configured to further forward the transcoded messages toward their destination.

Alperovich likewise lacks such disclosure, teaching, or suggestion. Alperovich is directed to routing a subscriber's traffic through a core network based on the availability of gateways within the core network that have a particular codec type associated with the subscriber's traffic. (See Abstract of Alperovich.) Nowhere does

Alperovich disclose terminally supporting a subsequent codec-bypass negotiation with an originating entity of a first message that includes transcoding subsequent messages received from the originating entity of the first message according to codec information regarding the originating entity of the first message and forwarding the transcoded messages to an intermediate entity configured to further forward the transcoded messages toward their destination, nor a target in-path gateway configured to utilize a codec-bypass connection compatibility with a gateway to transcode messages received from the gateway and forward the transcoded messages to an intermediate gateway configured to further forward the transcoded messages toward their destination.

Claims 2-15 depend from independent claim 1 and recite additional features. Claims 19 and 20 depend from independent claim 18 and recite additional features. Claim 23 depends from independent claim 22 and recites additional features. Accordingly, it is respectfully submitted that the rejection of claims 1-20, 22, and 23 as unpatentable over Shaffer variously in view of Harada, Mauger, and Alperovich should be withdrawn.

#### CONCLUSION

In light of the above amendments and remarks, it is respectfully submitted that the present application is now in condition for allowance, and an early notice to such effect is earnestly solicited.

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above Remarks, the Patent Examiner is respectfully

requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.

DEPOSIT ACCOUNT

Although no fee is believed to be due, the Commissioner is hereby authorized to charge any fees associated with the filing of this correspondence to Deposit Account No. **50-0426**.

Respectfully submitted,  
JENKINS, WILSON, TAYLOR & HUNT, P.A.

Date: December 28, 2011

By:



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